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United States Department of Agriculture
Bureau of Markets
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H A N D B O O K
OFFICIAL GRAIN
S T A N D A R D S
for
O A T S

Tabulated and abridged description of the
official grain standards of the United
States for oats as established and
promulgated by the Secretary
of Agriculture, March 15,
1919, effective June 16,
1919.

(Insert for U. S. G. S. A. Form No. 90)

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OATS STANDARDS

**For the purposes of the official standards
of the United States:**

Oats. Oats shall be any grain which consists of cultivated oats and not more than twenty-five per centum of foreign material, other grains, and wild oats, either singly or in any combination.

Color Classification. All oats shall be designated as white, red, gray, black, or mixed, according to the color of the oats, as the case may be. For the purposes of this classification, white oats include yellow oats. Oats shall be white, red, gray or black, respectively, when they consist of oats of such color, and not more than ten per centum of other colors of cultivated and wild oats, either singly or in any combination. Mixed oats shall be all other oats.

Grades. All oats shall be graded and designated as No. 1, No. 2, No. 3, No. 4, or Sample Grade, white, red, gray, black, or mixed, as the case may be, according to the respective requirements thereof as specified in these standards, except that in the case of mixed

oats the requirements as to the maximum percentages of other colors shall be disregarded.

Clipped Oats. Clipped oats shall be oats which have the general appearance of having had the ends removed by an oat clipper. Clipped oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not clipped, and there shall be added to, and made a part of, such grade designation the word "clipped."

Bleached Oats. Bleached oats shall be oats which in whole or in part have been treated by the use of sulphurous acid or other bleaching chemicals. Bleached oats shall be graded and designated according to the grade requirements of the standards applicable to such oats if they were not bleached, and there shall be added to, and made a part of, such grade designation the word "bleached."

Note.—The method and apparatus used in the Offices of Federal Grain Supervision to determine whether oats are bleached (sulphured) are described in S. R. A. No. 55 (Markets), United States Department of Agriculture, and can be obtained from any Office of Federal Grain Supervision, or from the Bureau of Markets, U. S. Department of Agriculture, Washington, D. C.

OATS.

Grade requirements for white, red, gray, black, mixed, bleached, and clipped oats.

Grade.	Condition and general appearance. ¹	Minimum test weight per bushel	Sound cultivated oats not less than	Heat damaged (oats or other grains).	Foreign material.	Wild oats.	Other colors, cultivated and wild oats.
Not to exceed—							
² 1	Shall be cool and sweet, and of good color.....	Lbs. 32	% 98	% 0.1	% 2	% 2	% ³ 2
2	Shall be cool and sweet, and may be slightly stained	29	95	0.3	2	3	⁴ 5
3	Shall be cool and sweet, and may be stained or slightly weathered	26	90	1.0	3	5	10
4	Shall be cool, and may be musty, weathered, or badly stained..	23	80	6.0	5	10	10
Sample Grade.	{ Shall be white, red, gray, black, mixed, bleached, or clipped oats, respectively, which do not come within the requirements of any of the grades from No. 1 to No. 4, inclusive, or which have any commercially objectionable foreign odor, or are heating, hot, sour, infested with live weevils or other insects injurious to stored grain, or are otherwise of distinctly low quality.						

¹ The percentage of moisture in grades Nos. 1, 2, and 3 shall not exceed 14½, and in grade No. 4 shall not exceed 16.

² In the case of white oats, No. 1 shall be cool and sweet and of good white or creamy white color.

³ 4 per cent of other colors allowed in No. 1 red, gray, or black oats. This column does not apply to mixed oats.

⁴ 10 per cent of other colors allowed in No. 2 red, gray, or black oats.

DEFINITIONS.

Basis of Determinations. All determinations shall be upon the basis of the lot of grain as a whole, including foreign material, other grains, and wild oats.

Percentages. Percentages, except in the case of moisture, shall be percentages ascertained by weight.

Percentage of Moisture. Percentages of moisture in oats shall be ascertained by the moisture tester and the method of use thereof described in Circular No. 72, and supplement thereto, issued by the United States Department of Agriculture, Bureau of Plant Industry, except that the graduated measuring cylinder used shall be that described in Department of Agriculture Bulletin No. 56; or such percentage shall be ascertained by any device and method giving equivalent results.

Note.—In making moisture tests of oats, use 50 grams of grain and 150 cubic centimeters of oil and extinguish the flame when the thermometer registers 195° centigrade. The special graduate (described in Department of Agriculture Bulletin 56) which is one-half the volume of the regular graduates in use for wheat and shelled corn should be used; however, the regular graduates may be used by doubling the readings.

Test Weight Per Bushel. Test weight per bushel shall be the test weight per Winchester bushel as determined by the testing apparatus and the method of use thereof described in Bulletin No. 472, dated October 30, 1916, issued by the United States Department of Agriculture, or as determined by any device and method giving equivalent results.

Note.—Under rules and regulations pursuant to the United States grain standards Act, licensed inspectors will be required to state in all certificates issued by them for oats the test weight per bushel in terms of whole and half pounds. For this purpose a fraction of a pound when equal to or greater than a half will be treated as a half, and when less than a half will be disregarded.

Foreign Material. Foreign material shall be all matter other than grains and pieces of grains of cultivated oats, except other grains and wild oats and shall include oats clippings.

Note.—In determining the quantity of foreign material in connection with the official grading of oats, in the Offices of Federal Grain Supervision, not less than 250 grams of the original sample are cleaned over the buckwheat sieves with triangular perforations $\frac{8}{64}$ inch on each side. Small pin oats which pass through the sieve are recovered by rescreening and any foreign material remaining in the sample is picked out by hand.

Other Grains. Other grains shall include wheat, corn, rye, barley, emmer, spelt, einkorn, grain sorghums, rice, cultivated buckwheat, and flaxseed, only.

Sound Cultivated Oats. Sound cultivated oats shall be all grains and pieces of grains of cultivated oats which are not heat damaged, sprouted, frosted, badly ground damaged, badly weather damaged, or otherwise distinctly damaged.

Heat Damaged Grains. Heat damaged grains shall be grains and pieces of grains of cultivated oats, other grains, or wild oats, which have been distinctly discolored or damaged by external heat or as a result of heating caused by fermentation.

Food and Drugs Act. Nothing herein shall be construed as authorizing the adulteration of oats by the addition of water, by the admixture of clippings or hulls, decomposed salvage oats, other grains, or any other foreign material, or otherwise, in violation of the Food and Drugs Act of June 30, 1916.